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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,184	03/09/2000	Henry Li	36941/CAG/B600	2290
23363	7590	02/24/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			VINCENT, DAVID ROBERT	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/522,184	Applicant(s) LI ET AL.	
	Examiner David R Vincent	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14,16-26,28-33 and 35-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-14,16-26,28-33 and 35-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/1/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's arguments filed 2/1/05 have been fully considered but they are not persuasive.
2. Regarding the comments about IDS. Filed August 14, 2002, the examiner has considered the newly filed IDS (and assumes it was the paper from 8/14/02). However, in the IFW records there is no record of an IDS filed 8/14/02.

Response to Arguments

1. Applicant's arguments filed 2/1/05 have been fully considered but they are not persuasive. The applicant argues outputting the second data stream or the first data stream.

In response, using the term OR merely implies that at any point in time one stream or the other will be output (the way a multiplexer operates). It also reads on outputting only one stream.

In re arguments pertaining to asynchronous:

Previously, (in remarks filed 9/13/04) the applicant argued that "a packet based network, by definition, is asynchronous" (see remarks filed 9/13/04, pg. 15), and in the present amendment (filed 2/1/05) the applicant amended the claims to specify that the claimed packet based network is asynchronous. In response to the applicant's remarks, the examiner asked the applicant to provide any documentation that was used in coming

Art Unit: 2661

to the conclusion that "a packet based network, by definition, is asynchronous". In response, the applicant did not submit any documentation nor did the applicant point to any part of the specification or disclosure where the term asynchronous is further defined. The term asynchronous is now specifically claimed and the examiner would like to know where in the specification this term is further defined or receive documentation that can be used to clarify the meaning of the term (please see 37 CFR 1.105, or MPEP 2111.01). The reason that examiner is repeatedly asking for this is because the examiner does not agree with the applicant's conclusion and cannot find a clear definition of the term in the specification.

It is the examiner's position that protocols such as HDLC (Arimilli: col. 6, lines 9-24) are full duplex synchronous packet protocols. Therefore the examiner disagrees with the applicant's assertion that a packet-based network, by definition, is asynchronous. Furthermore, Arimilli discloses that it is well known to use either synchronous or asynchronous lines for communication and that "asynchronous data is by definition formatted by framing each character with a start and stop bit" (col. 5, lines 51-65). For at least the above cited reasons, the examiner concludes that there is, at the present

Art Unit: 2661

time, no clear meaning of the term asynchronous (on the record), which the applicant claims and argues.

However, in order to advance the prosecution, the examiner has made a new ground of rejection below. Meaning, since Arimilli is mainly interested in transmitting data over synchronous transmission networks (in order to gain efficiency, col. 5, lines 52-54) the examiner has combined Arimilli with Murphy to more clearly show transmitting over asynchronous networks.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-14, 16-26, 28-31, and 35-47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Arimilli (US 6,515,984 of record) in view of Murphy (US 2002/0036791 of record).

As shown in e.g., Figs, 3-6C, 11-19, Arimilli discloses a plurality of signals and formats (receiving and transmitting at

Art Unit: 2661

least voice and fax from and to both analog PSTN and digital leased lines, e.g., Fig. 6C and respective disclosure), as specified in claims 1, 14, and 26; a first device being a telephone (RX from PSTN, Fig. 6C); detecting inputs or formats (col. 7, lines 47-53; col. 9, lines 59-67; col. 23, lines 40-64); encoding voice data (col. 4, lines 46-65; col. 7, lines 11-27; col. 12, lines 43-49 col. 14, lines 54-65); receiving from PSTN (col. 8); PCM data (col. 11, lines 50-67; col. 14, lines 54-65); fax (col. 8); using computer readable devices (col. 9); data pump or demodulating fax data or data that was modulated Page 4 using a voice band carrier (pumping out data from fax demodulator, cols. 23-24; col. 4, lines 46-65; demodulating from analog carrier, col. 7, lines 1-10; col. 32, line 65-col. 24, line 14); outputting the demodulated fax data or the encoded voice data (e.g., Figs. 2, 15-19; or col. 4, lines 30-46; outputting to digital leased lines, col. 5, lines 9-13; col. 6, lines 9-14; composite link, 315; muxing sporadic activity, col. 5, lines 40-51), decoding from packet network (Fig. 6A, col. 7, lines 30-47; input/output, 602, Fig. 6A; A/D and D/A, bi-directional, Fig. 6C; col. 6, lines 55-59), using packets (col. 5, lines 40-51); using packet data networks (col. 9, lines 15-47, especially line 39; DDS network, Fig. 6B); buffering data (col. 6, lines 30-47; 604, Fig. 6A; 402, Fig. 6C; col. 14, lines

Art Unit: 2661

40-53); and voice activity detection (col. 12, lines 4-11; col. 20, lines 10-25; 1205, Fig. 12; col. 15, line 49-col. 16, line 59), as specified in claims 1, 3-5, 7, 14, 16, 18, 26, 30, 35, and 38-39.

However, although Arimilli discloses that it is well known to use either synchronous or asynchronous lines for communication (col. 5, lines 51-65), Arimilli fails to particularly call for choosing asynchronous networks over synchronous ones. Therefore it can be argued that Arimilli fails to call for outputting over asynchronous networks. Arimilli also fails to particularly call for voice activity detection from the packet data network (PDN) to the PSTN, as specified in e.g., claims 8, 23, 42; inserting comfort noise, as specified in claims 6, 19, 24, 40, 42; using the buffers (col. 6, lines 30-47; 604, Fig. 6A; 402, Fig. 6C; col. 14, lines 40-53) for the purpose of jitter compensation, as specified in claims 11, 12, 20-21, 46; adjusting holding times in the jitter buffers, as specified in claims 13, 22, 47; and specifically using IP, as specified in claim 31.

Murphy teaches using asynchronous packet networks (12, Figs. 2-3, 5-7, 31-34, packet network 10, Fig. 36; 56, Fig. 37; 376, Fig. 42; 494, Fig. 43; WAN/Internet, Figs. 15-16, 44-47, and respective disclosure), voice activity detection from the

Art Unit: 2661

packet data network and suppressing when no voice is detected (claims 9-15, especially 9, 12), as specified in e.g., claims 8, 23, 42; inserting comfort noise (claims 9-14, especially claim 12), as specified in claims 6, 19, 40, 9, 24, 42; using the buffers (claims 9-14) for the purpose of jitter compensation, as specified in claims 11, 12; adjusting holding times in the jitter buffers (claims 9-14, especially claim 10), as specified in claims 9, 13, 22, 47; specifically using IP (sections 29 and 38-39, 119), as specified in claim 31; and detecting lost packets (claim 13-14), as specified in claims 10, 25.

Since Arimilli discloses using a variety of paths (col. 9, lines 32-39), and that it is well known to use either synchronous or asynchronous lines for communication and Murphy teaches that asynchronous packet based networks such as the Internet or WANs are well known, it would have been obvious to allow the communications disclosed in Arimilli (e.g., 313, Fig. 3 or 5A and respective disclosure) to transverse the Internet. By allowing the communications to be sent over the Internet, data can be sent less expensively and reach more people, e.g., mobile/PDA users.

It would have been obvious to add the reverse path voice activity detection of Murphy since it is clear that data is being received from the packet network disclosed in Arimilli (Fig. 6A,

Art Unit: 2661

col. 7, lines 30-47; input/output, 602, Fig. 6A; A/D and D/A, Fig. 6C; col. 6, lines 55-59). By detecting voice silence in both directions, and using the various buffers (e.g., col. 7, lines 1-27) to compensate for jitter and detecting lost packets, Arimilli could make the signals sound more natural or pleasing and Arimilli is clearly concerned with quality (cols. 13-14, especially col. 13, lines 39-40; and col. 14, lines 2-6).

Arimilli already discloses using packets and frames (Figs. 15-19; col. 6, lines 48-65) by using IP packets, the data could more easily be sent from the disclosed leased lines and digital data network (DDN, col. 9, lines 34-39) to the Internet so that more people could be reached and make use of the services. It is obvious that the DDN disclosed by Arimilli can be the Internet.

Claim Rejections - 35 USC § 103

4. Claims, 31-33, are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Arimilli and Murphy, as set forth above, in view of Chen (US 6,611,531),

However, Arimilli fails to particularly call for Frame Relay, ATM, and TDM, as specified in claims 31-33.

Chen teaches transmitting and receiving from a PSTN (e.g., col. 32, lines 54-67) to and from a digital data or packet network; Figs. 43, 45) where the DDN can be Frame Relay (Figs.

Art Unit: 2661

6, 10-12, 16, 18), ATM (Figs. 7, 13, 20), and TDM (Fig. 6) as specified in claims 31-34. Chen also teaches signals from telephones (col. 29); voice encoding (902, Fig. 9; 1010, Figs. 10, 21, 44), and fax demodulating (Fig. 14).

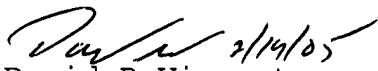
It would have been obvious to make the DDN disclosed in Arimilli to be a FR, ATM or TDM network since Arimilli discloses packets and DDNS (col. 9, lines 34-39 and outputting to digital leased lines, col. 5, lines 9-13; col. lines 9-14). By using the FR, ATM or TDM lines, the output data could be sent at a very high rate; by using FR and ATM, data could be prioritized and Arimilli discloses using priorities (col. 6, lines 20-24).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571 272 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David R Vincent
Primary Examiner
Art Unit 2661

February 19, 2005